City of Lafayette Staff Report

For: City Council

By: Ron Lefler, Public Works Services Manager

Date Written: February 27, 2009

Meeting Date: March 9, 2009

Subject: Drought Status, Suspension of Water Well Study/Construction for Community Park

Drought Status

Based on recent communication with Dave Langridge from EBMUD (email attached), I believe we can safely assume that rationing will continue through this year but will probably be no greater than last year. Since we managed to achieve nearly 30% reduction in water use in 2008, with minimum loss of landscape, we should be able to do so again this year.

Should the drought continue into 2010 EBMUD will have completed its Freeport project (information attached, (http://www.freeportproject.org/). With the additional water source made possible by the Freeport Project, EBMUD will be in a position to limit future mandatory rationing to 15%. With this in mind, the need to develop alternative water sources, such as water wells or trucked water is greatly diminished and not urgent.

Water Wells at Community Park Status

Based on the ground imaging under taken at Community Park there would be a reasonable probability of finding ground water at several locations in the Park (See Site Map). The depth to ground water could vary from 300-feet to 700-ft, a depth within the capabilities of local well drillers. The consultant estimated the wells could deliver between 15 to 30 gallons of water per minute. This is not enough to run the irrigation system directly, and some type of storage with pumps would be required to meet peak demand.

To expedite the design/construction process bid documents were prepared and an opening of bids scheduled for February 24th. No bids were received. One potential bidder showed up but he had not completed filling in the bid proposal.

Based on what we have learned to date from having gone through the process, the cost of constructing wells at the Park could range from about $215,000 (1 well) to $459,000 (2 wells). The estimated cost includes the wells, pumps, pond expansion, modifications to the existing irrigation system and other related expenses. In addition to the construction costs the annualized cost of maintenance and replacement could range from $16,300 (1-well) to $35,700 (2 wells). This is 2 to 4 times greater than the maximum annual savings of $8,000 realized by not having to use EBMUD water for irrigating landscape and turf at the Park (we would still need EBMUD water for the restroom and drinking fountains).

Water wells may have some future benefit in protecting the City's investment in its landscaping and turf should climate change lead to consecutive drought years exceeding historic weather trends, but do we want to proceed with the construction of water wells just to have them available in the event that this may occur and at what cost?

If we want to proceed with further consideration of the construction of water wells, we should re-bid the project. Actual bid prices would give us costs from which we can better evaluate cost versus cost savings. Staff does not recommend rebidding the project at this time.

Recommendation

Suspend any further consideration of water well construction at Community Park at this time.

All data and information obtained to date will be compiled and placed on the City server under Public Works for future reference.

Attachment

Email from EBMUD

From: Langridge, David [mailto:dlangrid@ebmud.com]
Sent: Tuesday, February 24, 2009 3:57 PM
To: Lefler, Ron
Cc: Terhune, David; Feehan, Donna
Subject: RE: Water Rationing Status, Spring/Summer/Fall 2009, City of Lafayette

Hi Ron, great to hear from you again.

I personally would plan on the same allocations again. The snow pack is being measured in the Sierras the first week of March,

that will help identify the how high the water content of the snow is. It is still to early to tell if EBMUD will be out of mandatory rationing or not.

Dave Langridge

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From: Lefler, Ron [mailto:RLefler@ci.lafayette.ca.us]
Sent: Tuesday, February 24, 2009 3:08 PM
To: Langridge, David
Cc: Terhune, David; Feehan, Donna
Subject: Water Rationing Status, Spring/Summer/Fall 2009, City of Lafayette

David, even with the recent rains I will be planning on maintaining our landscape water use at the same allocation as set for 2008 (30% reduction from the base years), is this realistic, or do we need to plan on further reductions??

Ron Lefler

City of Lafayette

Public Works Services Manager

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